Amendments to the Specification:

Please replace paragraph [0022] with the following amended paragraph:[1]

[0022] To ensure a crystalline microstructure that consists essentially of the stoichiometric phase, the BSAS composition of the protective coating 20 of this invention preferably has a silica content of at least 47 molar percent, and preferably has a near-stoichiometric silica content, i.e., about 50 molar percent or more. For this purpose, the protective coating 20 may have the stoichiometric composition for BSAS (by molar percent, about 18.75% barium oxide, about 6.25% strontia, about 25% alumina, about 50% silica, and likely ~~the balance~~ incidental impurities) throughout its thickness or at least in the outer surface region 22. With sufficient silica content, the protective coating 20 (or at least its outer surface region 22) can be processed in accordance with the invention to be substantially free of the second phase. This aspect of the invention is evident from Figure 8, which summarizes data obtained during investigations that led to the

---

[1] All references to pages and paragraphs in Applicant's electronically-filed application are those inserted by the USPTO authoring software.

invention. Figure 8 evidences that the stoichiometric celsian phase of BSAS and the nonstoichiometric second phase of BSAS contain distinctly different amounts of silicon (and therefore, silica). Whereas the celsian phase has a nominal silicon atomic content of about 15.4%, generally encompassing a range of about 14.3 to 17.2 atomic percent based on investigations discussed below, the second phase appears to have a silicon atomic content of less than 11.4%. From XRF (X-ray fluorescence) bulk chemistry measurements made on coatings deposited by air plasma spraying (APS) and powders used to deposit the coatings, it was determined that a powder having a silicon content near the theoretical 15.4 atomic percent would produce a coating having a bulk average silicon content of about 14.4 atomic percent.

Please replace paragraph [0031] with the following amended paragraph:

[0031] In a third investigation, additional BSAS coatings were deposited by APS on CFCC (continuous fiber ceramic composite) combustor liners for an extended engine test. As with the first and second investigations, the powder material used to deposit the

coatings had a composition of, in molar percent, about 19.0% BaO, about 6.8% SrO, about 24.8% Al_2O_3, and about 49.4% SiO_2, and therefore had a silica content only slightly below the stoichiometric amount. Also consistent with the two previous investigations, the coatings were targeted to have stoichiometric compositions (in molar percent, ~~OLE_LINK2OLE_LINK218.75%~~ 18.75% BaO, 6.25% SrO, 25% Al_2O_3, and 50% SiO_2). However, XRF showed the coatings to have as-deposited compositions of, in molar percent, about 20.1% BaO, about 7.2%SrO, about 26.0% Al_2O_3, and about 46.8% SiO_2. Therefore, the coatings had a sub-stoichiometric silica content (i.e., below 50 molar percent), and strontia constituted more than 26 molar percent of the BaO+SrO content. A comparison of the powder and as-deposited coating chemistries indicated that the APS process caused a nominal 7.4 weight percent loss of SiO_2 by volatilization. SEM imaging of the coatings showed a two-phase crystalline structure similar to that seen in Figure 2, namely, the stoichiometric celsian phase and the non-stoichiometric second phase. Image analysis approximated the second phase as present in an amount of about 15 volume percent.